

SEQUENCE LISTING

<110> Alnylam Pharmaceuticals Inc.

<120> siRNA CONJUGATES

<130> 14174-070WO1

<150> US 60/465,665

<151> 2003-04-25

<150> US 60/463,772

<151> 2003-04-17

<150> US 60/469,612

<151> 2003-05-09

<150> US 60/465,802

<151> 2003-04-25

<150> US 60/493,986

<151> 2003-08-08

<150> US 60/494,597

<151> 2003-08-11

<150> US 60/506,341

<151> 2003-9-26

<150> US 60/510,246

<151> 2003-10-9

<150> US 60/510,318

<151> 2003-10-10

<150> US 60/518,453

<151> 2003-11-07

<150> PCT/US04/07070

<151> 2004-03-08

<160> 28

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<210> 1

<211> 16

<212> PRT

<213> Artificial Sequence

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<223> Exemplary Cell Permeation Peptide

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Arg Gln Ile Lys Ile Trp Phe Gln Asn Arg Arg Met Lys Trp Lys Lys
1 5 10 15

<210> 2

<211> 14

<212> PRT

<213> Artificial Sequence

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<400> 2

Gly	Arg	Lys	Lys	Arg	Arg	Gln	Arg	Arg	Arg	Pro	Pro	Gln	Cys
1				5					10				

<210> 3

<211> 27

<212> PRT

<213> Artificial Sequence

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<223> Exemplary Cell Permeation Peptide

<400> 3

Gly	Ala	Leu	Phe	Leu	Gly	Trp	Leu	Gly	Ala	Ala	Gly	Ser	Thr	Met	Gly
1				5					10					15	
Ala	Trp	Ser	Gln	Pro	Lys	Lys	Lys	Arg	Lys	Val					
			20					25							

<210> 4

<211> 18

<212> PRT

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<223> Exemplary Cell Permeation Peptide

<400> 4

Leu	Leu	Ile	Ile	Leu	Arg	Arg	Arg	Ile	Arg	Lys	Gln	Ala	His	Ala	His
1				5					10					15	
Ser	Lys														

<210> 5

<211> 26

<212> PRT

<213> Artificial Sequence

<220>

<223> Exemplary Cell Permeation Peptide

<400> 5

Gly	Trp	Thr	Leu	Asn	Ser	Ala	Gly	Tyr	Leu	Leu	Lys	Ile	Asn	Leu	Lys
1				5					10					15	
Ala	Leu	Ala	Ala	Leu	Ala	Lys	Lys	Ile	Leu						
			20					25							

<210> 6

<211> 18

<212> PRT

<213> Artificial Sequence

<220>

<223> Amphiphilic model peptide

<400> 6

Lys Leu Ala Leu Lys Leu Ala Leu Lys Ala Leu Lys Ala Ala Leu Lys
1 5 10 15
Leu Ala

<210> 7

<211> 9

<212> PRT

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<223> Exemplary Cell Permeation Peptide

<400> 7

Arg Arg Arg Arg Arg Arg Arg Arg Arg
1 5

<210> 8

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Exemplary Cell Permeation Peptide

<400> 8

Lys Phe Phe Lys Phe Phe Lys Phe Phe Lys
1 5 10

<210> 9

<211> 37

<212> PRT

<213> Artificial Sequence

<220>

<223> Exemplary Cell Permeation Peptides

<400> 9

Leu Leu Gly Asp Phe Phe Arg Lys Ser Lys Glu Lys Ile Gly Lys Glu
1 5 10 15
Phe Lys Arg Ile Val Gln Arg Ile Lys Asp Phe Leu Arg Asn Leu Val
20 25 30
Pro Arg Thr Glu Ser
35

<210> 10

<211> 31

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<223> Exemplary Cell Permeation Peptides

<400> 10

Ser Trp Leu Ser Lys Thr Ala Lys Lys Leu Glu Asn Ser Ala Lys Lys
1 5 10 15
Arg Ile Ser Glu Gly Ile Ala Ile Ala Ile Gln Gly Gly Pro Arg
20 25 30

<210> 11

<211> 30
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<223> Exemplary Cell Permeation Peptides

<400> 11
Ala Cys Tyr Cys Arg Ile Pro Ala Cys Ile Ala Gly Glu Arg Arg Tyr
1 5 10 15
Gly Thr Cys Ile Tyr Gln Gly Arg Leu Trp Ala Phe Cys Cys
20 25 30

<210> 12
<211> 36
<212> PRT
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<220>
<223> Exemplary Cell Permeation Peptides

<400> 12
Asp His Tyr Asn Cys Val Ser Ser Gly Gly Gln Cys Leu Tyr Ser Ala
1 5 10 15
Cys Pro Ile Phe Thr Lys Ile Gln Gly Thr Cys Tyr Arg Gly Lys Ala
20 25 30
Lys Cys Cys Lys
35

<210> 13
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<220>
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<400> 13
Arg Lys Cys Arg Ile Val Val Ile Arg Val Cys Arg
1 5 10

<210> 14
<211> 42
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<213> Artificial Sequence

<220>
<223> Exemplary Cell Permeation Peptides

<400> 14
Arg Arg Arg Pro Arg Pro Pro Tyr Leu Pro Arg Pro Arg Pro Pro Pro
1 5 10 15
Phe Phe Pro Pro Arg Leu Pro Pro Arg Ile Pro Pro Gly Phe Pro Pro
20 25 30
Arg Phe Pro Pro Arg Phe Pro Gly Lys Arg
35 40

<210> 15
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<212> PRT
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<220>

<223> Exemplary Cell Permeation Peptides

<400> 15

Ile	Leu	Pro	Trp	Lys	Trp	Pro	Trp	Trp	Pro	Trp	Arg	Arg
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<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated peptide

<400> 16

Ala	Ala	Val	Ala	Leu	Leu	Pro	Ala	Val	Leu	Leu	Ala	Leu	Leu	Ala	Pro
1				5					10					15	

<210> 17

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated peptide

<400> 17

Ala	Ala	Leu	Leu	Pro	Val	Leu	Leu	Ala	Ala	Pro
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<210> 18

<211> 13

<212> PRT

<213> Human immunodeficiency virus

<400> 18

Gly	Arg	Lys	Lys	Arg	Arg	Gln	Arg	Arg	Arg	Pro	Pro	Gln
1				5					10			

<210> 19

<211> 16

<212> PRT

<213> Drosophila Antennapedia

<400> 19

Arg	Gln	Ile	Lys	Ile	Trp	Phe	Gln	Asn	Arg	Arg	Met	Lys	Trp	Lys	Lys
1				5					10					15	

<210> 20

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> "Dual targeting" siRNAs

<221> misc_feature

<222> 20, 21

<223> n = dT= deoxythymidine

<400> 20
uaccagcacc caggugcugn n 21

<210> 21
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> "Dual targeting" siRNAs

<221> misc_feature
<222> 20, 21
<223> n = dT= deoxythymidine

<400> 21
ccgggcaucc ggacgaguun n 21

<210> 22
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Dual targeting siRNA

<221> misc_feature
<222> 1, 2
<223> n = dT= deoxythymidine

<400> 22
nnaugguagu gggucgacga c 21

<210> 23
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> "Dual targeting" siRNAs

<221> misc_feature
<222> 1, 2
<223> n = dT= deoxythymidine

<400> 23
nnggcccguc gcccagcuca a 21

<210> 24
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Pseudocomplementary, bifunctional siRNA

<221> misc_feature
<222> 5
<223> n = A* = 2-aminoadenine

<221> misc_feature
<222> 20, 21
<223> n = dT= deoxythymidine

<400> 24
uaccngcacc caggugcugn n

21

<210> 25
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Pseudocomplementary, bifunctional siRNA

<221> misc_feature
<222> 16
<223> n = A* = 2-aminoadenine

<221> misc_feature
<222> 20, 21
<223> n = dT= deoxythymidine

<400> 25
ccgggcaucc ggacgnguun n

21

<210> 26
<211> 21
<212> DNA
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<221> misc_feature
<222> 1, 2
<223> n = dT= deoxythymidine

<221> misc_feature
<222> 7
<223> n = U* = 2-thiouracil

<400> 26
nnauggnagu gggucgacga c

21

<210> 27
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<221> misc_feature
<222> 1, 2
<223> n = dT= deoxythymidine

<221> misc_feature
<222> 18
<223> n = U* 2-thiouracil

<400> 27

nnggcccgcguc gcccgagcnca a

21

<210> 28

<211> 23

<212> DNA

<213> Mus musculus

<400> 28

aagctggccc tggacatgga gat

23